

**REMARKS**

Applicants amend claims 1-7 and add new claims 8 and 9. Accordingly, claims 1-9 are all the claims pending in the application. No new matter is added.

***Claim objections***

Claims 5 and 7 are objected to under 37 C.F.R. § 1.75(c) as being in improper form because a multiple dependent claim can not depend from another multiple dependent claim.

In view of the claim amendments to claims 5 and 7 submitted herewith this Amendment, Applicants respectfully requests the Examiner to withdraw the objection to these claims.

***Claim rejection under 35 U.S.C. § 102(e)***

Claims 1, 2 and 6 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kokami et al. (U.S. Patent No. 6,900,604).<sup>1</sup> Applicants traverse the rejection for at least the following reasons.

**Claim 1**

Claim 1 recites, *inter alia*, “a rotor position estimating section (200) for calculating electrical angle of the rotor of the motor.” Applicants respectfully submit that Kokami does not disclose this feature of claim 1.

Kokami is directed to a drive control system for sensor-less motor applied to the brush-less DC multi-phase motor not including rotation detecting sensor (column 1, lines 6-14). However, Kokami does not disclose a rotor position estimating section (200) for **calculating electrical angle** of the rotor of the motor.

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<sup>1</sup> The Examiner rejects claims 2 and 6 in page 3 lines 3-6 of the detailed action.

For example, in FIG. 11, Kokami discloses that when a motor drive command is issued, the period of B-EMF of coil is detected first to detect the rotating speed of motor. Next, it is judged where the rotating speed of motor is only a several percents of the target speed or not in order to execute the steady rotation control with the PLL control or execute the drive sequence. In the steady rotation control, rotation control of motor is accelerated with the power feeding phase control in the PLL control (column 12, lines 5-30).

Moreover, when the motor rotating speed is higher, the motor is judged to reach the steady rotation and the soft switch control is executed to assure smooth commutation of the power feeding phase. Further, the soft switch has a function to compensate for the power feeding phase to always generate a higher torque, without relation to change of drive current, by feeding back the phase control signal indicating the magnetic pole position and the current control signal (ADCOUT) indicating the drive current as the control information. (column 12, lines 31-45). However, Kokami does not disclose anything about a rotor position estimating section (200) for calculating electrical angle of the rotor of the motor.

In view of the above, Applicants submit that claim 1 is allowable over the cited reference.

#### Claims 2 and 6

Applicants submit that claims 2 and 6 depend from claim 1, and therefore are allowable at least by virtue of their dependency.

#### ***Claim rejection under 35 U.S.C. § 103(a)***

Claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kokami in view of Acarnley (U.S. Patent No. 6,005,364). Applicants traverse the rejection for at least the following reasons.

Claims 3 and 4

Applicants respectfully submit that since claims 3 and 4 depend from claim 1 and since Acarnely does not cure the deficiency noted above with respect to claim 1, claims 3 and 4 are allowable at least by virtue of their dependency and the additional limitations recited therein.

*New claims*

Claims 8 and 9

Applicants respectfully submit that claims 8 and 9 depend from claim 1, and therefore are allowable at least by virtue of their dependency and the additional features recited in the claims.

*Conclusion*

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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